



Combined Core Tools Training

Find out how five Core Tools (FMEA, APQP, PPAP, SPC, and MSA) underpin the product development process and product life cycle, from concept to service support, with this comprehensive Core Tools Package training deal.

This single course combines our individual Core Tools courses to run across 4 consecutive days. The course includes interactive workshops, case studies and team activities to encourage group discussion around the application of these Core Tools.

At the end of the course delegates will understand how Core Tools enable organisations to develop new products and processes more efficiently, reduce the risk of product and process failure, and enable co-operation between supply chain partners.

COURSE DURATION

4 days

CPD

Equivalent to 28 hours

COURSE PRICE

From £1595 + VAT

DATES & VENUES

[View dates & venues](#)

CERTIFICATES

All delegates will receive a certificate on completion.

Who should attend?

This training course is suitable for anyone involved in, or in charge of, a manufacturing and design process.

Those attending this course do not need to have substantial knowledge of the topics prior to this course.

Delegates should bring a laptop or calculator for use in practical workshops.

By booking this package, delegates can save up to £605 + VAT compared with booking each of the APQP, PPAP, FMEA, SPC and MSA courses separately.

Key topics

Topics covered on the course include:

- APQP (advanced product quality planning) and PPAP (production part approval process):
- the business need for APQP and PPAP processes
- the requirement for APQP and PPAP in IATF/TS 16949
- overview of APQP process
- project management and timing plans
- PPAP process and requirements
- scope and limitations of approval
- evaluation of evidence submitted
- Ford phased PPAP requirements
- levels of submission and evidence required
- FMEA (failure modes effects analysis):
- the business need for FMEA in product and process design
- types of FMEA – system, design, process and machinery
- FMEA methodology and definitions
- SPC (statistical process control):
- the existence and measurement of variation
- understanding and managing variation
- role of control charts
- X-range charts
- attributes charts
- capability analysis
- MSA (measurement system analysis):
- concepts of MSA
- measurement system elements and their contribution to measurement variation
- terminology and concepts (bias, linearity, stability, repeatability and reproducibility)
- existence and measurement of variation
- variation
- normal distribution
- accuracy and precision
- measures of variation (mean, standard deviation and variance)
- MSA studies
- bias (overview and methodology)
- linearity (overview and methodology)
- stability studies (overview and methodology)
- measurement uncertainty (overview)
- measurement system analysis and studies (variable and attribute)
- repeatability and reproducibility
- performance of a gauge R&R study
- interpretation and use of study data (from example data provided)
- use of data for cost-saving (calibration intervals, number of measurements taken etc.)

Course agenda

Our training courses are designed to optimise the learning experience for delegates both in face-to-face settings and in our Virtual Classroom.

This training package combines our key Core Tools courses across 4 days. Find agendas for these courses on the links below.

- Day 1 : [Introduction to APQP and PPAP](#)
- Day 2 : [Failure Mode and Effects Analysis](#)
- Day 3 : [Statistical Process Control](#)
- Day 4 : [Measurement Systems Analysis](#)

Skills gained

This combined Core Tools training enables delegates to:

- gain a strong understanding of all the Core Tools
- identify the requirements and expectations for a product or process
- initiate APQP and PPAP processes for product development within an organisation
- use SPC techniques to generate, utilise and interpret control charts to manage process variation
- use MSA to determine the suitability of measurement systems
- produce an FMEA and fit an FMEA to identify and manage potential failures
- perform FMEA to the latest standards
- provide high-quality products that meet or exceed customer expectations
- produce high volumes sustainably

In-company training

Ideal for groups, you can receive this course exclusively for your organisation at your premises or online in our user-friendly Virtual Classroom.

Enjoy cost-effective flexibility and personalised learning with tailored messaging designed to address your unique business challenges. [Contact us for a quote.](#)



Delegates who attend and fully participate in this Core Tools training course will receive a Certificate of Completion.

The tutor took the time to explain the methodologies in ways that were easy to understand and gave both real life and theoretical explanations.

Baxi Heating

Already able to apply the knowledge in my job. Our tutor was absolutely fantastic, he is a knowledgeable presenter who could explain the topics with real examples which makes understanding the concepts much easier.

Endomagnetics Ltd

The tutor was extremely professional, presented the course very well, had an excellent understanding of what he was tutoring and even helped to apply it to some of our own work. Highly recommend him for any future training needs.

Eurotec International Plc

[Read our Core Tools course reviews](#)

Why train with Bywater?

Bywater is the leading independent provider of professional management systems training in the UK.

Our expert training offers practical understanding of how to realise the benefits and assess the success of implementing and operating successful management systems.

Bywater delegates know they can rely on proven training delivered by experts at times and locations to suit their needs.

40 years established

100+ course titles

15 UK locations

1000+ courses annually

 Global Virtual Classroom

CQI & IRCA, ISEP, RSS and IOSH approved training provider.



[VIEW DATES & VENUES](#)

Booking is easy

Simply select a course date and venue and fill in the online form. View our full range of courses at www.bywater.co.uk

If you have any questions please call us on 0333 123 9001, use our online chat or email contact@bywater.co.uk

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